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A POST-KEYNESIAN ANALYSIS OF THIRD WORLD MILITARY EXPENDITURES

by
ROBERT LOONEY *

Introduction

One of the most disturbing trends in developing countries in recent years has been the rapid growth in defense spending. While the decade 1975-85 saw more than a 30 percent increase in defense spending in real terms, third world countries as a whole showed an even greater propensity to spend on armaments and security – a rise of over 50 percent in defense spending during the same period (Deger and West, 1987, p. 1).

While the willingness of political leaders to pursue national objectives through military means is hardly unique to the third world, the military burdens of many less developing countries greatly exceed the levels even the most sympathetic observers would concede are adequate for national security needs. In fact there is increasing evidence (Mullins, 1987, ch. 2; McKinlay, 1989, chs. 1, 2) that the growth in military power and the willingness to employ it are not directly related to the state's economic performance or to the level of economic development. The net result of these trends is that some of the world's poorest nations, as measured in terms of Gross National Product (GNP), are among the most heavily armed.

While the real resources devoted to national defense by developing countries has more than doubled over the last decade, there has been very little investigation by development analysts of the causes of this phenomenon.

The decisions with respect to military expenditures and arms imports are generally viewed as being governed by exogenous factors, outside the considerations bearing on allocation of public resources for development and civilian government services, and presented as a kind of budgetary Hobson's choice (Deger and West, 1987, p. XXI).

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Recently, however, the magnitude of budgetary allocations to national defense and the austerity imposed by severe constraints on the resources available to third world governments have stimulated a new interest in accounting for the purposes and consequences of military expenditures.

There is, however, little evidence of a consensus with respect to the appropriate weighing of factors in an explanation of the allocation of resources to national defense or in a generally-applicable model of the interaction between security and economic performance (Deger and West, 1987, p. XXI).

Even at the conceptual level, economic theory does not provide any clear prediction of how the net impact of an increase in the military burden would influence growth, development, or welfare (Taylor, 1981, p. 1). Classical theory, for example, would predict on the basis of resource allocation that increases in defense will decrease investment and/or civilian consumption and thus reduce growth or welfare.

Keynesian theory, on the other hand, implies that in the presence of inadequate effective demand the operation of the income multiplier would imply an increase in national product, resulting from increased expenditures. More specifically, Keynesians generally assume, at least in the case of the developed countries, that in situations of excess capacity, operating with substantial excess capacity, additional demand and output from expanded military expenditure will increase capacity utilization, thereby increasing the rate of profit and possibly accelerating investment (Treddenick, 1985, 79-80). Clearly, whether Classical or Keynesian effects predominate will determine the net impact of defense expenditures on growth (Deger and Smith, 1985, p. 15; Deger, 1986, ch. 4).

Because of the concentration of defense plants in the developed countries, most economists have tacitly assumed that if Keynesian defense related effects are operative, their impacts would be most likely felt in these economies. The developing countries, being more supply constrained and generally lacking indigenous defense industries, would be more logical places to find the Classical mechanisms operative (Looney, 1989c).

Perhaps for these reasons, Marxists have also focused their analysis of the causes and consequences of military expenditures largely on the advanced countries.

At least for the United States, recent empirical studies have not supported the Marxian interpretation of defense expenditures (Looney and Mehay, 1989). In addition, Marxists have had a hard time countering the argument why, given the relatively capital intensive nature of defense industries, the rate of return on these activities has not fallen over time. One

way to get around this apparent contradiction in Marxist analysis is to assume that capitalist governments purchase armaments at negotiated prices. They tax civilian incomes and profit and redistribute the revenue in such a manner that the favored military producers receive a disproportionately higher return on their investment.

While some evidence supporting this proposition has been found in the third world, particularly in military regimes (Looney, 1989b), some conceptual problems still exist.

Still, such government intervention cannot overcome the decline in the average rate of profit. Rather than buttressing modern capitalism as contemporary Marxist economists would have it, military production hastens the fall in the rate of profit, and therefore, can serve only to identify the internal contradictions Marx had forecast (Looney, 1989b).

Probably because of the lack of a consistent theory of defense expenditures applicable to all countries, the major examinations to date on possible defense-growth relationships in the third world have been for the most part undertaken with resort to a theoretical empirically based macroeconomics (Deger and West, 1987, p. 10).

Because the results of this analysis have tended to vary with sample size and period covered, few definitive conclusions as to the net impact of increased allocations to defense can be made. For example, several studies have indicated negative effects are likely, while others have found positive associations (Chan, 1985, 1987). Since there is so little theoretical analysis underlying this work, it is impossible to choose between competing interpretations of the impacts likely to be associated with third world military expenditures.

The purpose of this paper is to merge several elements in the Classical, Keynesian and Marxist approaches to the analysis of third world military expenditures. The aim is to develop an empirically testable post-keynesian framework. Hopefully, this approach will be capable of providing insights not only as to the likely economic impacts associated with third world military expenditures, but, perhaps what is more important, a partial understanding of the motivations underlying these expenditures.

A Post Keynesian Framework

One of the major attractions of the post-keynesian approach to the analysis of the ramifications of third world military expenditures is that it

provides an explanation of economic growth and income distribution (Looney, 1989d) – with the two viewed as being directly linked to one another (Eichner, 1978; Cornwall, 1978). The key determinant to both is investment, whether measured against total national income or viewed as the percentage change over time.

In this regard higher military spending may have significant multiplier effects, particularly if concentrated on the acquisition of domestic equipment and supplies. It is also possible with excess industrial capacity, that positive industrial linkages to the non-military private sector exist. It follows that the demand generation emanating from the military may, through increased capacity utilization, expand output and thus increase the rate of return on capital, investment, and possibly increase growth (Deger and Smith, 1985, p. 50).

If this assessment is correct, we need to distinguish between the first order and second order effects of military spending. The immediate direct impact of a rise in military spending is likely to be higher demand, production, and employment. These favorable effects, however, may be offset significantly by the indirect effects of military expenditures in reducing private savings and investment, which will in turn hurt longer run increases in productivity and growth (Deger and Sen, 1983).

Therefore both the direct and indirect effects of these expenditures must be considered in a net assessment of their economic impact. At the risk of over simplification, there are four main perspectives to this assessment (Chan, 1985, p. 415). The first, the “modernization” model, is most closely associated with Benoit (1973, 1978). Benoit acknowledged that military expenditures can have several unfavorable consequences:

1. Income shift (increased military spending necessarily reduces the civilian domestic product);
2. Military productivity effect (compared with the civilian sector, the government sector is characterized by slower productivity increases); and
3. Investment effect (military spending crowds out civilian investment).

However, given his finding of a positive relationship between the defense burden and economic growth in the third world, Benoit stressed some compensating favorable factors:

1. The military helps to introduce modern skills and attitudes;
2. The military’s capital expenditures (e.g., roads, bridges, airports) have alternative civilian uses and help to strengthen a country’s economic infrastructure; and
3. Defense spending leads to mild inflation which in turn, encour-

ages fuller utilization of production facilities. In Benoit's view, these indirect positive effects of defense spending outweigh its direct or indirect negative effects on economic growth.

Part of the problem in applying a post-keynesian approach to third world defense issues stems from the fact that developing countries are far from homogeneous. One would expect the impact of increased defense expenditures on the Brazilian economy to vary somewhat from that experienced in Chad. Similarly, countries with an indigenous arms industry (Looney, 1988, ch. 4) should experience *ceteris paribus* different defense/income multipliers than those found in non producing nations (where *ceteris paribus* a larger proportion of increased military expenditures is likely to wind up in imported weapons).

How governments allocate expenditures can have a significant impact on the relative incomes of the middle- and high-income groups. A major middle-income group is made up of professionals and administrators employed by the public sector. By raising the salaries of these employees, the government can easily improve the position of the middle class. On the other hand, an increase in purchases of military hardware would increase the relative incomes of influential middlemen and contractors.

A recent study of Saudi Arabian public sector expenditures illustrates this phenomenon. Here Kavoussi (1983, pp. 75-76) notes that in the aftermath of the oil price increases of 1973, government expenditure clearly shifted from wage and salary payments to purchases of military goods and investment in machinery and construction. By 1979, the share of wages and salaries in total government expenditure had been reduced to one half of the 1973 level. In contrast, during the same period, the share of investment increased twenty percentage points to about one-half of all public sector outlays. Immediately after the oil price increase, the proportion of government expenditure spent on military purchases increased from 25 to 35 percent and remained at that level until 1977. The slowdown in the growth of military expenditures in 1978 caused a larger increase in the share of investment than in the share of wages and salaries.

Due to the lack of reliable data on income distribution, we assume below that changes in the share of consumption in GDP are reflective of income distributional changes. That is, since the lower income groups consume a large portion of their incomes, a reduction in the share of private consumption in gross domestic production indicates a deterioration in the distribution of income.

In short, if the post-keynesian approach toward third world military expenditures is correct, we should expect significantly different patterns of

growth and distribution associated with military expenditures in arms producing and non producing countries.

Impact of Military Expenditures on Consumption and Investment

Without excess capacity, increased military expenditures will either reduce civilian consumption or else capital formation and thus growth. *A priori* the impact of the military burden on private consumption after controlling for savings, government revenues and the resource balance, could either be positive or negative. However, taxes and savings should reduce the share of private consumption in *GDP*, with larger deficits in the balance of payments facilitating increases in the share of consumption in *GDP*:

$$PRB = f[AS (-), RBB (-), RTCRYB (-), MEP(?)].$$

Where:

PRB = the average share of private consumption in *GDP*, 1970-82
AS = average savings rate, 1970-82
RBB = the average resource balance as a % of *GDP*, 1970-82
RTCRYB = average government revenues as a % of *GDP*, 1970-82
GETYB = average government expenditures as a % of *GDP*, 1970-82
MEP = average per capita military expenditures, 1970-82

For the non-Producers:

$$(1) PRB = - 0.49 AS - 0.33 RBB - 0.41 RTCRYB + 0.56 MEP$$

$$(- 2.44) \quad (- 3.27) \quad (- 2.58) \quad (3.47)$$

$$df = 30; r^2 = 0.751; F = 19.04$$

For the Producers:

$$(2) PRB = - 0.77 AS - 0.18 RBB - 0.03 RTCRYB - 0.75 MEP$$

$$(- 5.38) \quad (- 1.46) \quad (- 1.02) \quad (- 5.26)$$

$$df = 17; r^2 = 0.768; F = 18.48$$

An interesting pattern therefore exists whereby the military burden appears to be associated with higher consumption in the non arms produc-

ing countries. In sharp contrast, increases in the military burden appear to come at the expense of consumption in the arms producing nations.

In contrast, the impact of the military burden on the share of investment in *GDP* (*GDIB*) is reversed, i.e., the military burden is associated with increased levels of investment in the arms producing countries and decreased levels of investment in the non-producing countries. More specifically:

Non-Producers:

$$(3) \quad GDIB = 0.88 \, AS - 0.61 \, RBB + 0.48 \, GETYB - 0.41 \, MEP$$

$$(6.47) \quad (-4.57) \quad (4.31) \quad (-3.59)$$

$$df = 293; r^2 = 0.775; F = 20.08$$

Producers:

$$(4) \quad GDIB = 0.98 \, AS - 0.74 \, RBB - 0.48 \, GETYB + 0.55 \, MEP$$

$$(6.05) \quad (-4.34) \quad (-1.35) \quad (2.86)$$

$$df = 17; r^2 = 0.762; F = 10.41$$

Where:

GDIB = the average share of investment in *GDP*, 1970-1982

GETYB = the share of government expenditure in *GDP*, 1970-82

How can these differential impacts of the defense burden – increased investment and reduced consumption – associated with increased defense burdens in the arms producing countries and vice versa for non-producers, be explained?

Interestingly enough, these results are consistent with those likely to be found as a result of economic disarticulation (Taylor and Bacha, 1976). Particularly in the case of semi-industrialized LDCs, there is likely to be a group of dynamic leading industries specializing in production of automobiles, machinery, consume durables and military equipment. Higher arms spending selectively stimulates demand for products from precisely these sectors.

The resulting output increases require employment of relatively skilled and managerial workers at high incomes; their “modern” tastes as consum-

ers causes a second round of leading sector demand. If extra demand were met by diversion of capacity from industries producing commodities favored by less skilled workers and the poor, then the stage would be set for a growth process supported by a squeeze on wage goods. Investment would be stimulated by the increase in output in leading sectors, adding still more demand pressure. There would be additional generation of high income consumer purchases and so on.

The whole process operates under a resource constraint, but it is evaded by diversion of capacity from sectors producing wage goods in the process; only the poor lose by slow growth of production in commodities suited to their needs (Taylor 1981, p. 4).

The net effect might also be to lower the overall output to capital ratio, as observed above for the arms producers, because wage goods tend to be more labor intensive than arms production or consumer durables.

This sort of mechanism can support faster growth when there are significant differences in consumption patterns between poor and rich, for example, in demands for food and consumer durables.

The net effect in the arms producing countries would be a more likely increase (than in the case of non-producers) in investment (due to direct linkages) and declines in overall private consumption (since lower income groups consume a higher proportion of their incomes) associated with increases in the military burden. While the same investment and consumption could conceivably occur in the arms producing countries, the likelihood is that there would be much less. In fact, these countries might experience a more direct positive relationship between added personnel and consumption with increased military burdens and reduced levels of investment due to few direct linkages associated with an increased military burden.

These are precisely the patterns for arms and non-arms producers identified by the empirical analysis above.

Inflationary Impacts of Defense Expenditures

It is possible that the linkages between the defense burden and consumption observed for the arms producing countries could, instead of the mechanisms outlined above, be caused by inflation and the resulting forced savings impact on private consumption (together with a stimulating impact on overall investment).

According to this line of reasoning, one might also expect the inflationary impact of increased defense expenditures to be greater for the arms

producers (due to capacity constraints and policies of domestic absorption). Non-arms producers could, in part, meet added military burdens through constant price imports.

In fact, a number of writers have argued that defense spending raises demand without increasing supply, and, therefore, that it does not contribute to current or future standards of living. Moreover, because more of this spending goes to the procurement of capital goods than do other forms of government spending, it is more inflationary. It is also less resistant to prices and wage increases as military procurement from domestic suppliers is often negotiated on a cost-plus basis. Thus, defense spending may be disproportionately a cause of cost push inflation.

Finally, because officials are usually reluctant either to raise taxes or to cut back other spending to finance additional defense expenditures, their resort to budget deficits and public debt tends to generate further inflationary pressure (Chan, 1985, p. 418).

According to this line of reasoning, the inflationary impacts of increased military budgets might be expected to be higher in the arms producing countries.

To test for the inflationary impact of increased defense burdens, a simple model was developed whereby inflation between 1970 and 1982 (*INFB*) was postulated to be influenced positively by:

1. inflation in the 1960-70 period (*INFA*) – to control for chance high or low inflation countries
2. the average per capita military expenditure (*MEP*), 1970-82; and
3. the average share of public consumption (*PCB*) in *GDP* 1970-82 (*PCB*).

Public consumption was introduced to correct for any biases that might occur from a high correlation between overall public sector consumption and the military burden, i.e., the higher the share of public consumption in *GDP ceteris paribus* the greater the aggregate consumption demand and the fewer the private sector consumer goods available to meet that demand.

The results were as follows:

Producing Countries:

$$(5) \quad INFB = 0.62 PCB + 0.80 INFA - 2.19 MEP$$

$$(3.09) \quad (7.71) \quad (-2.19)$$

$$df = 17; r^2 = 0.854; F = 27.49$$

Non-Producing Countries:

$$(6) \quad \begin{array}{ccccccc} INFB = & 0.21 & PCB & + & 0.76 & INFA & + & 0.02 & MEP \\ & (-2.14) & & & (7.79) & & & (0.24) & \end{array}$$

$$df = 28; r^2 = 0.614; F = 12.36$$

The negative impact of the military burden in the producing countries clearly invalidates the forced savings explanation of falling private consumption and increased investment found with increased military burdens. The income distributional demand profile alteration and resource shift mechanism outlined above (in the discussion of private consumption) tends to be supported, or at least not invalidated, by the observed patterns of military burden and inflation.

With regard to the impact on growth of defense expenditures, while Benoit's suggestion that defense spending could encourage fuller utilization of the existing productive facilities may be particularly relevant for the defense producers, it has much less relevance for the non-producers. The latter countries are likely to be more constrained by supply. The supposed benefits of defense spending may simply impose additional burdens on the economy through expanded salaries, etc., producing excess demand for goods and services in general. The net result might well be slower, rather than faster, economic growth.

Impact of Military Expenditures on Productivity

A more subtle effect military expenditures may have on the economies of developing countries may be through the impact of military expenditure on absorptive capacity. If cooperating factors, such as technical personnel, infrastructure, vital intermediate imports, craft skills, and so forth are diverted to the military as a consequence of defense spending, then the productivity (or rate of return) of investment will drop. The result will be a reduction in the demand for new productive capital formation and a deceleration in overall economic growth.

On the other hand the counter argument would claim that defense expenditure has a high productivity enhancement effect, since it contributes to skill formation, technical and vocational training, and the creation of new infrastructure (Deger and Sen, 1983, p. 50). In like fashion, skills imparted by military education and drill (knowing how to drive, functional numeracy and literacy, craft skills, etc.) remain with trainees for life. If

soldiers are mostly conscripts, they may rapidly carry their acquired learning back to productive use in civilian life.

Regardless of which mechanism predominates, the net impact of increased military burden on the productivity of capital should manifest itself in changes in the output capital ratio (*ICOR*) (here defined as the growth in real *GDP* 1970-82 divided by the growth in domestic capital formation over the same period).

If the net effect of an increase in the military burden is to reduce the productivity of capital (and presumably its rate of return), increased defense expenditures should have a negative sign when regressed on *ICOR*. Several other factors could, however, simultaneously reduce overall productivity and must therefore be controlled for.

These include:

1. The growth in public sector consumption (*PCGB*) i.e., an expansion in "unproductive" public sector consumption might divert resources from production capital formation.

2. Inflation (*INFB*) might also reduce capital productivity and/or absorption through diversion of investment towards more speculative activity.

The model used to test for the possible effects of military expenditures was therefore specified as:

$$ICOR = f[PCGB (-), INFB (-), MEP (-)]$$

where:

PCGB = the growth in real public consumption, 1970-82

INFB = the rate of inflation, 1970-82

MEP = the average military expenditure per capita, 1970-82.

The results:

Producing Countries:

$$(7) \quad ICOR = -0.14 PCGB + 0.42 INFB - 0.87 MEP$$

$$(-0.98) \quad (3.06) \quad (-7.16)$$

$$df = 18; r^2 = 0.808; F = 21.16$$

Non-Producing Countries:

$$(8) \quad ICOR = 0.21 PCGB - 0.22 INFB - 0.12 MEP$$

$$(1.24) \quad (-1.40) \quad (-0.75)$$

$$df = 38; r^2 = 0.114; F = 1.51$$

The results for the arms producers indicate that increased military burdens have a highly significant and negative impact on the productivity of investment. The non-arms producers, in sharp contrast do not experience any statistically significant impacts of military expenditure on investment productivity.

In sum, the empirical results tend to confirm one of the hypotheses outlined earlier: increased military expenditures in countries with an indigenous arms industry may result in that industry (due to government priorities on defense and defense related activities) pre-empting scarce managerial, scientific and technical inputs from the private sector. The net result being one of reducing the rate of return (as proxied by the incremental capital output ratio) on investment.

Determinants of Military Expenditures

Traditionally, the bulk of the literature (Maizels and Nissanke, 1987) on third world military expenditure has stressed external or strategic-political variables as critical in affecting allocations to defense. Recent research (Looney, 1988; Looney and Frederiksen, 1988) however, indicates that overall expenditure constraints may ultimately set the actual range in which military expenditures are likely to fall.

In terms of the producers and non-producers, the results of a small model linking arms production, resource constraints, military expenditures and arms imports (Looney, 1989a), demonstrated that a high proportion of the various measures of resources allocated to the military in arms producing countries can be accounted for by internal (economic) factors. On the other hand, non-producer environments were found to be relatively more susceptible to external factors. Apparently, the possession of an indigenous arms industry results in ongoing demands to maintain relatively high (and stable) levels of defense expenditures.

Extending these findings, the general form of the military expenditure relationship was specified as:

$$MEP = f[GNPPER (+), GDB (?), PCB (+)]$$

Where:

- MEP = the average level of per capita military expenditures, 1970-82
 $GNPPER$ = the average per capita income, 1970-82
 GDB = the average share of government borrowing in GDP , 1970-82
 PCB = the average share of government consumption in GDP , 1970-82

The results:

Producing Countries:

$$(10) \quad MEP = 0.21 \text{ } GNPPER + 0.29 \text{ } GDB + 0.43 \text{ } PCB$$

$$(2.22) \quad (-3.37) \quad (2.94)$$

$$r^2 = 0.921; F = 142.18$$

Non-Producers:

$$(11) \quad MEP = 0.59 \text{ } GNPPER - 0.46 \text{ } GDB + 0.09 \text{ } PCB$$

$$(4.73) \quad (-5.82) \quad (0.87)$$

$$r^2 = 0.892; F = 122.36$$

Apparently the governments of non-producing countries may not face the same political pressures to maintain high levels of defense expenditures during periods of low external threat simply to maintain employment in defense plants. In these countries, there is not a strong link between military expenditures and government borrowing. Nor is there a close relationship between military expenditures and the share of resources accounted for by government consumption.

For the arms producers, hardly any output from defense plants is absorbed by external markets. This places great pressure on internal sales to sustain efficient levels of production. Arms producers appear to respond to this need by resorting to borrowing to sustain defense expenditures. In addition the close link between military expenditures and the share of government consumption in GDP suggests some sort of "Military Keynesianism" based on stimulating demand in defense plants during deflationary periods (Looney, 1989b; Looney and Frederiksen, 1987; and Looney 1989c).

In addition, the producing countries appear to finance a large part of their military expenditures with external debt and therefore are not necessarily shifting domestic resources away from productive activities to produce arms. Tighter controls on foreign lending to these countries would undoubtedly make arms production somewhat less attractive.

The Impact of Military Expenditures on Overall Growth

The analysis in the previous sections suggested several mechanisms through which increased military burdens may, depending on whether or not the country is an arms producer, impact on the growth process. As shown above, arms producers are characterized by a shift in income from households to the public sector associated with increases in the military burden. While this shift does not appear to be inflationary in and of itself, there is reason to believe the net impact on income distribution may be regressive. In sharp contrast, non-arms producers appear to shift resources toward the private sector (in the form of increased consumption) as the military burden increases.

A priori one can argue that the net impact of these income distributional shifts might be one of increased or decreased growth. A logical case could also be that, given the many other factors impinging on third world growth rates, the overall impact of increased military burdens is likely to be rather insignificant.

Operationally, the role of the military burden (*MEP*) in effecting overall growth in third world countries was examined by determining its impact on the margin after other growth inducing and inhibiting factors had been accounted for (Looney and Frederiksen, 1986):

$$GDPGB = f[GDIGB (+), INFB (-), RBB (+), MEP (?)]$$

Where:

GDPGB = average rate of growth of real *GDP*, 1970-82

GDIGB = the growth in investment, 1970-82

INFB = the rate of inflation, 1970-82

RBB = the average resource balance as a % of *GDP*, 1970-82

MEP = the average share of military expenditures in *GNP*, 1970-82

The results:

Arms Producing Countries:

$$(9) \quad \text{GDPGB} = 0.74 \text{ GDIGB} - 0.29 \text{ INFB} + 0.40 \text{ RBB} + 0.35 \text{ MEP}$$

$$(3.80) \quad (-1.62) \quad (2.62) \quad (2.09)$$

$$df = 19; r^2 = 0.736; F = 10.50$$

Non-Producing Countries:

$$(10) \quad \text{GDPGB} = 0.92 \text{ GDIGB} - 0.15 \text{ INFB} + 0.05 \text{ RBB} - 0.59 \text{ MEP}$$

$$(7.24) \quad (-1.87) \quad (0.52) \quad (-4.23)$$

$$df = 45; r^2 = 0.639; F = 19.27$$

Again a contrasting pattern appears whereby the military burden tends to inhibit growth in the non-producing countries and stimulate it in the arms producing countries.

Conclusions

Benoit's work on the impact of military expenditures has attracted considerable attention over the past twenty years for at least three reasons:

1. His analytical reasoning is persuasive in the sense that there is good economic logic behind the claim that defense expenditures can, at least in the short run, increase overall growth.

2. He produced economic evidence in support of his claim as to the macroeconomic impact of defense expenditures.

3. His analysis shows that the transmission mechanisms of defense efforts to the rest of the economy may be substantially different in developing countries from those in the advanced industrial economies.

The present study has shown that a post-keynesian approach to the defense growth debate provides a useful framework for interactions between defense spending, the distribution of income, investment and overall economic growth. The analysis above provides some additional insights into the dynamics affecting the ultimate impact of defense expenditures on overall economic growth.

Specifically it appears that the macro-linkages from the arms industry to the economy enable third world arms producers to minimize the adverse impacts on the economy often associated with increased military burdens. The mechanism through which this process occurs, however, appears to worsen the overall income distribution through the shifting of resources from wage goods to investment. More fundamentally the lowering of overall productivity of investment stemming from increased military expenditures is likely to take a long run toll on growth through reducing the amount of investment flowing into productive capital formation.

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ANALISI POST-KEYNESIANA DELLE SPESE MILITARI DEL TERZO MONDO

Scopo di questo articolo è di riunire vari elementi degli approcci classico, keynesiano e marxista all'analisi delle spese militari del Terzo Mondo. Sulla base

di questa sintesi risulta che un approccio post-keynesiano al dibattito sull'aumento della difesa fornisce un utile schema per le interazioni fra spese di difesa, distribuzione del reddito, investimento e crescita economica generale. Inoltre, questo schema fornisce ulteriori intuizioni sulla dinamica di ciò che determina in definitiva l'impatto delle spese per la difesa sulla crescita economica globale.